

SITUATION REPORT NO. 3
INCIDENT NO. 2000-016
DATE: April 11, 2000 TIME: 12:00 p.m.

TO: Governor Edward T. Schafer
State Capitol
Bismarck, N.D. 58505

1. NATURE OF DISASTER: Moisture Conditions – Related Problems: High water tables, resulting from seven years of consecutive flooding, continue to cause safety- and health-related problems in some areas in north central, south central and southeast North Dakota. Flooding conditions continue in the Devils Lake area. Devils Lake remains near its historic high level as thousands of acres remain inundated while transportation routes, other infrastructure and communities, as well as rural areas, are threatened. Meanwhile many areas in North Dakota are reporting dry conditions that may impact spring planting and that have resulted in grass fires.
2. DEATHS AND INJURIES: No change from previous reports.
3. DAMAGES: Devils Lake at Creel Bay measured 1,446.01 feet mean sea level (msl) on April 10.

Devils Lake has remained relatively stable the last few months, as is normal over the winter, and, on March 21, was at elevation 1,446.25 feet msl. At this elevation, Devils Lake covers approximately 120,000 acres and holds 2.3 million acre-feet of water, the N.D. State Water Commission reported.

Cool temperatures occurred last week across the state while snow fell in the northwest and north central districts, according to the North Dakota Crop Weather Report issued on April 9 by the North Dakota Agricultural Statistics Service. The snowfall will provide needed moisture but could result in poor conditions for livestock. Strong winds this past week caused soil erosion and some damage to buildings and trees. Dry conditions persist, especially in the western districts. Topsoil moisture supplies were rated 27 percent short to very short, compared to 2 percent for the five-year average. On April 10, additional heavy snow was received in some areas of north central North Dakota, and included up to 10 inches in the Sherwood area.

Emergency managers for North Dakota's 53 counties have indicated dry vegetation conditions throughout most of the state.

Grass fires, attributed to dry fuel conditions and wind, have been reported in McHenry, Barnes, Grand Forks. McIntosh, Emmons, Hettinger and Burleigh Counties.

4. RESOURCES:
LOCAL: No change from previous reports.
STATE: No change from previous reports.
FEDERAL: No change from previous reports.

5. VOLUNTEER ACTION: The American Red Cross has distributed basement clean-up kits to residents in the city of Bocket.
6. MAJOR ACTIONS: Grand Forks County officials reported the sheriff has issued a ban on open burning as of April 7, 2000.

The State Engineer has granted an emergency drain license to the Ransom County Water Resource Board to open the McLeod Drain in an attempt to alleviate water-related problems in Sandoun Township. Approximately 20 homeowners have reported water in their basements. All homes have septic problems, and most private wells are contaminated. The Ransom County Commission, Sandoun Township and the Richland County Water Resource Board agreed upon user fees. The Ransom County Emergency Manager reported that two culvert gates have been opened on the McLeod Drain. A third gate is partially open, and a fourth gate remains closed.

Because of the possibility of exposure to rabies, the N.D. Department of Health (DoH) issued a news release urging North Dakotans to use caution when encountering muskrats. The Game and Fish Department has been granting director's permits to counties to destroy muskrats that are causing problems in the road right-of-ways. Game and Fish officials place the state's muskrat population at two million, double the amount found in North Dakota four years ago. These burrowing rodents have increased in population in areas with high water tables and flooding, an ideal habitat for the rodents. They have been undermining road structures and wandering into residential areas. Although muskrats generally are considered a low-risk species for carrying rabies, DoH officials say they are capable of acquiring the disease and transmitting it to other animals and humans through bites.

The North Dakota Agricultural Mediation Service (NDAMS) and Job Service North Dakota have joined together to provide outreach and referral assistance to displaced farm families through the North Dakota Survival Program. Job Service contracted with NDAMS with funds provided by the federal Job Training Partnership Act to help farmers, ranchers, farm workers and qualifying family members who are displaced from or threatened with the loss of their farm or ranch operations.

Governor Schafer issued a proclamation declaring April 17-21 as Severe Spring Summer Weather Awareness Week. He asks that businesses and educational institutions take extra precautions to ensure that their employees and students know exactly what to do and where to go in the event severe weather arises.

State Flood Coordination Center:

Participants of the State Flood Coordination Center (SFCC) conducted their first meeting of the year 2000 on March 30. The SFCC has been meeting since March 23, 1995, to discuss Devils Lake Basin flood-related issues. Following is a summary by agency:

N.D. State Water Commission

Hydrologic Update

The March 10th spring flood outlook for Devils Lake, issued by the National Weather Service (NWS), indicates no snow exists within the basin and soil moisture is below normal due to below normal precipitation and above normal temperatures last fall. Based on average precipitation and evaporation rates through August, the outlook calls for Devils Lake to reach a maximum daily elevation of approximately 1,446.5 feet msl. The outlook estimates Devils Lake could reach 1,448 feet msl this summer if the basin receives above normal precipitation through August.

Future Lake Level Probabilities

On March 16th State Water Commission staff met with the climatologist for the University of North Dakota (UND) and staff from U.S. Geological Survey (USGS) to discuss climatological trends and impacts they may have on the level of Devils Lake. The UND climatologist pointed out that the state is currently in a wet cycle that appears to have started in 1977, noting that several of the wettest winters on record have occurred since that time. It is likely the wet cycle will continue for at least 10 years, and the dry weather the basin has experienced the last few months is normal, since even in wet periods, smaller, more pronounced dry periods may develop. These cycles superimpose themselves onto one another, resulting in short dry periods during a longer wet cycle. The USGS also noted a shift in the climate near 1980; most notable was the increase in fall and winter precipitation. To account for this apparent climatic shift, the USGS updated its lake level probability model for Devils Lake to use the 1980-1999 climatology rather than the 1950-1999 period of record. An updated model suggests higher probability that the lake will continue to rise, and places the probability of a natural spill to the Sheyenne River at just under 2 percent in the next 15 years.

The SWC is cooperating with the USGS and UND to develop a fact sheet summarizing the climate shift, the resulting change in hydrology, and the increased risk of higher lake levels. This fact sheet should be completed by the end of the April and will be distributed to the public as soon as possible.

Temporary Outlet Proposal

If constructed, the Twin Lakes temporary outlet is intended to remove water from Devils Lake at a maximum rate of 300 cubic feet per second (cfs) and discharge it into the Sheyenne River. The components and the route are designed to avoid any impacts to wetlands, tribal trust or allotment lands.

SWC's Project to Move Water to Stump Lake

The U.S. Army Corps of Engineers (USACE) regulatory office has not yet issued a 404 permit for the state's proposed project to improve the flow of water to Stump Lake. The delay is due in part to the incompatibility of the project with the Stump Lake National Wildlife Refuge. Because of the delay, the channel will not be constructed in time to provide any benefit this year. To improve the flow of water to Stump Lake, should Devils Lake exceed 1,447 feet msl, the state is pursuing removal of vegetation along the channel. The landowners have been contacted and have granted permission for the removal of vegetation. Plans called for removal to take place near the end of February; however, the unusually mild winter resulted in unsafe ice conditions that prevented the work. Since it was not possible to remove the vegetation on the ice, we propose to burn it. Landowners are being contacted to obtain permission for this and a burn permit application will be submitted to the N.D. Department of Health.

North Dakota Emergency Management

The Churchs Ferry Hazard Mitigation Grant Program (HMGP) costs are estimated to reach approximately \$3.9 million to acquire flood-threatened property in this Ramsey County community. Last year, the acquisition program began after HMGP funding became available through the presidential disaster declaration for 1999 storms and flooding, FEMA-1279-DR-ND. To date, 39 appraisals of the 43 homes have been completed. HMGP staff has made offers on 28 of the homes; 26 offers have been accepted, and two are pending. Once acquisitions of homes are complete, appraisals and offers will be made to owners of vacant buildings. HMPG staff anticipates completing the acquisition process by fall.

Owners of the BTR Farmers Cooperative at Churchs Ferry are awaiting word from the National Flood Insurance Program (NFIP) in settlement of a flood insurance claim before making final decisions. The State Hazard Mitigation Team has been discussing potential funding support options for relocation of the elevator. The team expressed its commitment to leveraging funding to support the relocation of the elevator, which is under eminent threat from Devils Lake flood waters.

State and federal officials have completed a comprehensive risk assessment to identify elevations of structures in the Devils Lake Basin. The work was conducted in partnership by the Federal Emergency Management Agency (FEMA) and the State of North Dakota as part of a risk assessment for Ramsey, Benson, Nelson, Towner and Eddy Counties and Spirit Lake Tribe. State HMGP staff has been coordinating with FEMA to complete the risk assessment. Staff members have also been working with representatives of several agencies to provide information needed to complete the risk assessment. These agencies include the N.D. Department of Transportation, N.D. Department of Health, N.D. State Water Commission, Public Service Commission, FEMA, North Dakota Emergency Management, Ramsey, Benson, Eddy, Nelson and Towner Counties and the Spirit Lake Tribe. Information gathered from the risk assessment will be available as a planning tool for federal, local and state officials. Training sessions on how to interpret and use the information will soon be conducted for state, tribal and local agencies.

Federal Highway Devils Lake Transportation Task Force

The Federal Highway Devils Lake Transportation Task Force is preparing a report outlining alternatives for protecting areas of the Spirit Lake Reservation and Ramsey County where roads are currently acting as dams. The task force is comprised of federal, state and local agencies. The report includes preliminary costs and areas/facilities protected for alternatives ranging from no action to using the existing road alignments. A working group from the task force was formed to prepare this report. The working group expects to complete a draft for task force member review by April 12. The full task force will meet on April 25, to discuss the report and develop plans for completing the document. The task force will also prepare a plan for distributing the report.

N.D. Parks and Recreation Department, Devils Lake State Parks

Shelvers Grove: A lake elevation of 1,446.5 feet will not cause any additional major problems other than some erosion to the campground entrance road on windy days. The agency plans on placing rip-rap to minimize the damage.

Grahams Island: No new damages are anticipated this coming summer based on the current NWS lake level normal precipitation forecast. Construction will begin in April to relocate several of the facilities that were damaged by flooding in prior years. The assistant manager's residence was relocated during November.

Black Tiger Bay: The facility will be operational in 2000 up to a lake level of approximately 1,448.5 feet. No flood-related problems are expected.

N.D. Game and Fish Department

The amount of boat access work for this season at Devils Lake is expected to be relatively minor when compared to previous years. All of the existing boat ramp tops are 1,449.1 feet msl or higher. Two sites that have work planned are:

East Bay Site: Plans call for enlarging, rip-rapping and graveling the parking area. The ramp site slope will also be redone.

Minnewaukan Site: Plans are to expand and rip-rap the parking area and install a new dock.

N.D. National Guard

The N.D. Highway 20/57 grade raise in front of Camp Gilbert C. Grafton will necessitate the relocation of the main entrance. The guard shack, display items and front gate/fence will be removed within the next month. The contractor on the road project will build up the approach to camp off of the newly raised highway.

Camp officials have bid a project to protect the southwest shoreline at camp. This project will involve removing trees, hauling in about 70,000 cubic yards of fill to create a sloped bank and, hauling in about 42,000 ton of rip-rap for bank protection. One of the caretaker residences at camp will probably have to be relocated because of this project.

Camp officials are concerned about possible flooding taking place near the baffle range. If this happens, floodwaters will threaten the ammo supply point.

N.D. Highway Patrol

Troopers assigned to the Devils Lake Office have been heavily involved with work associated with relocation of Devils Lake area and Churchs Ferry homes. The Highway Patrol writes permits for the moves, and the N.D. Department of Transportation (DOT) approves permits based on road surfaces. Once approved, troopers escort the homes and ensure weights are within permit requirements. The Highway Patrol also coordinates moves with local utility companies

The Highway Patrol, in cooperation with local law enforcement, plans to enforce road restrictions and will have temporary scales to ensure truckers meet weight limits on roads where weight restrictions are in place.

North Central Planning Council (NCPC)

There are no current funds available for any new diking programs similar to the Benson/Ramsey Temporary Diking Program of the past two years. Last year's program assisted 35 applicants with diking, access or sewer problems. Funds expended totaled \$90,333.

NCPC is committing \$90,000 of Community Development Block Grant (CDBG) funds for the local match for the city of Minnewaukan's city renovation of water and sewer lines. The Federal Emergency Management Agency (FEMA) is contributing approximately \$1.5 million.

N.D Insurance Department

Staff members at the Insurance Department are monitoring the status of the Devils Lake situation and are available as a resource, as needed.

North Dakota Department of Transportation (DOT)

The N.D. Highway 57 Narrows crossing was opened to traffic last fall, and hot bituminous pavement was placed on the crossing. Additional damage occurred in a fall windstorm that was also fixed with federal ER (emergency repair) funds. This project is built to an elevation of 1,455 feet with the bridge higher.

Contractors made very good progress on grade raises on N.D. Highway 20, north of Acorn Ridge and near Camp Grafton, and on N.D. Highway 57 south of the casino. Neither project is 100 percent complete, but both are high enough so that a rise in lake level this spring will not cause any problems. These projects will be paved this summer. If the primed traffic surface breaks up any more than it has, the speed limit will be lowered to 25 miles per hour (mph) for safety reasons. These projects are built to an elevation of 1,455 feet.

The grade raises on N.D. Highway 20 at Mission Bay and Black Tiger Bay were completed and paved. The highways were raised to an elevation of 1,452.75 feet.

DOT has plans ready but no right-of-way purchased to relocate N.D. Highway 1 at Stump Lake. The road's elevation is 1,411 feet. If needed, the Department could have it ready for a May bid opening.

A consulting engineer has been hired, and several meetings have been held on work to be done on U.S. Highway 2 west of Devils Lake. If flooding occurs this spring, the department has developed a plan to keep U.S. Highway 2 open to traffic.

Bids were received last fall on a special contract to perform emergency rip-rap repairs on all the area lake crossings if high winds cause erosion, damage to rip-rap, or heavy debris deposition. The contractor on this project will be required to react on very short notice to make necessary emergency repairs.

DOT is participating in the installation of new stream gauges in the East Devils Lake -Stump Lake area to better define water elevations and flows in the area.

U.S. Army Corps of Engineers (USACE)

The St. Paul District of the USACE will continue to work with federal, state, tribal and local emergency response officials on future flood problems, and the potential for USACE assistance. The Corps is prepared to provide emergency assistance under PL 84-99 to support local response efforts in the Devils Lake basin, including Spirit Lake Reservation, should the lake rise to threatening levels.

The project to elevate the city of Devils Lake levee system to a top-of-levee elevation of 1,457 feet is essentially complete. The Corps is ready to respond to any request from the City, County, and/or State for an additional raise to the project. Construction design allows for an additional three feet, if necessary. Construction on the levee began in 1995 when the original levee was raised by seven feet, and construction crews extended the line of protection to 1,447 feet for areas not previously protected. The level of protection was increased from a lake elevation of 1,440 to 1,447 feet (the top-of-levee elevation was raised from 1,445 to 1,452 feet). Work then began in 1998 to elevate the levee alignment to a protection level of 1,450 feet with a top-of-levee elevation of 1,457 feet. The total estimated cost of all portions of the levee raise project is \$42 million.

The District is prepared to assist the City of Minnewaukan to study alternative flood protection measures, should the lake rise to more threatening levels. District staff, in recent years, has worked with the Minnewaukan Flood Committee to study the feasibility of a levee system for the Benson County city.

City of Devils Lake

Pumping stations for the levee system for the city of Devils Lake are now operational, and the city no longer relies on temporary gator pumps. However, these temporary pumps are still available, if needed. The permanent pumping stations are located at the Creel Bay, Eagle Bend, East Ditch, N.D. Highway 20, 17th Street Southeast and the Devils Lake Country Club. These stations will be under control of the city of Devils Lake.

With the levee construction essentially complete, the USACE will conduct dam safety training for city and county officials. The training encompasses technical operational issues and structural monitoring of the dike.

N.D. Department of Human Services, Lake Region Human Service Center

The Disaster Outreach Program continues to target mitigation of the human impact of the Devils Lake Basin and flooding in surrounding areas. The program has had some transitions. On December 10, 1999, the program shifted from immediate service grant funding to regular grant funding, with oversight through the N.D. Department of Human Services under the auspices of FEMA and the Center for Mental Health. The Spirit Lake Nation Team has remained fully staffed and functioning. The Devils Lake team has had some staff transitions, and in two weeks we will have two new full-time crisis counselors joining our program. The program is funded for a total of six positions.

From December 10, 1999, through February 29, 2000, the Lake Region Human Service Center has opened cases for 52 individuals whose problems are related to the flood impact. Staff members have provided 858 hours of counseling, psychiatric, psychological, addiction or other clinical services to this population. This is separate from the Disaster Outreach Program, where 2,402 individuals were served from June through November 19, 1999. The more recent data is still being compiled.

The Disaster Outreach Program has worked closely with the Helping and Support (HandS) Interfaith Coalition, which is comprised of faith leaders and human service providers. One of the significant projects for our two organizations is a collaborative effort to bring a food and volunteerism program into the area. *Fare for All* is a program that allows anyone in the area to order food at significantly reduced cost, with the only obligation being to provide a minimum of two hours of volunteer time during the month that food is ordered. Since so many flood- and farm-impacted families are on tight food budgets, there is consensus that this program can successfully play a role in targeting some of the economic stress that many have experienced. Other discussion is underway to target more community-wide solutions.

Nelson County Highway Department

Because spring runoff was minimal, Nelson County roads are in relatively good shape this spring, the first time since flooding began in 1993. Crews will be working to raise and rip-rap a Federal Aid System (FAS) road that was damaged during the 1999 flood. The department has received reports of roadbeds needing additional gravel. Muskrats have caused damage along roadways.

Nelson County Emergency Management

The county emergency manager indicated that city and county officials are worried about possible contamination of the city of Lakota's drinking water because a water line is threatened as Stump Lake continues to rise.

The Red River Regional Council received a disaster-related housing rehabilitation grant for Pembina, Walsh, Grand Forks and Nelson Counties. To qualify for this grant, individuals need to be considered low income. In Nelson County, the guideline for 1999 annual gross income would need to be less than \$23,600 for a two-person household, and \$29,500 for a four-person household.

The Sheyenne River in Nelson County is slightly lower than normal for this time of year. The majority of the ice has moved off the river, and flows appear not to have impacted many roads and or culverts as in previous years. Sloughs have also diminished ice conditions and are at lower levels.

Benson County Emergency Management

This spring, roads are in the best condition that officials have seen during the past 10 years. Muskrats, however, are digging into the slopes alongside roads, causing cave-ins.

City of Minnewaukan

The city of Minnewaukan is finalizing plans to improve the city's sewer and waste water system. The hydrostatic pressure of the lake has raised the water table in the city, causing damages to the city's water and sewer system, as well as its streets. North Dakota Emergency Management, through FEMA, has allocated approximately \$3 million in 1999 Public Assistance funds for the project.

Northern Plains Electric Cooperative

During March 20 to 30, Northern Plains Electric Cooperative lost approximately 25 poles as a result of wind and ice damages. However, only one of these poles was near Devils Lake. The remaining poles were scattered throughout the system, from Cando to Rugby to Robinson to Jamestown. Cooperative officials considered themselves fortunate that damages were minimal.

Ramsey County Emergency Management

Three more homes were moved recently, two from Benson County moved into Ramsey County (NFIP endorsement), and one from Ramsey County to Spirit Lake Nation. These homes were moved under an endorsement of the National Flood Insurance Program (NFIP) that would allow payment of claims in situations where flood inundation is imminent.

Ramsey County Water Board

The gates for Channel A were scheduled to close March 31. Logs in the Sweetwater-Morrison structure are in place; there was no flow between Dry Lake and Sweetwater.

Ramsey County Highway Department

As with Benson and Nelson County roads, no major problems have been reported to the Ramsey County Highway Department. Officials are waiting for the frost to come out of roads.

General Discussion

The next Devils Lake State Flood Coordination Center will be Thursday, May 18, 2000, at 1:30 p.m. in the basement meeting room of the Ramsey County Courthouse.

7. ASSISTANCE NEEDED: With the exception of continuing technical support, no additional assistance has been requested.
8. OUTSIDE HELP ON SCENE: No outside assistance has been reported at this time.
9. OTHER: Situation Reports published by North Dakota Emergency Management are posted on the Division's Internet home page. The address is: <http://www.state.nd.us/dem>.

Douglas C. Friez, State Director